



Gigamon ThreatINSIGHT Sensor Deployment Guide

GigaVUE-HC1 SMT-HC1-S Module

Product Version: 5.12 and above

Document Version: 1.0

(See Change Notes for document updates.)

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Change Notes

When a document is updated, the document version number on the cover page will indicate a new version and will provide a link to this Change Notes table, which will describe the updates.

Document Version	Date Updated	Change Notes
1.0	08/30/2021	Original release of this document as a standalone was published after 5.13; however the contents apply to GigaVUE-FM v 5.12.xx and above.

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Gigamon ThreatINSIGHT Sensor

This section describes the Gigamon ThreatINSIGHT Sensor, which is used to detect, respond to, and investigate network-based threats. It also provides instructions for deploying the Gigamon ThreatINSIGHT Sensor on the GigaVUE-HCI SMT-HCI-S module using GigaVUE-FM.

Refer to the following sections:

- [Threat Detection and Response with Gigamon ThreatINSIGHT](#)
- [Rules and Notes](#)
- [Work With Gigamon ThreatINSIGHT Sensor—A Roadmap](#)
- [Get Started With Gigamon ThreatINSIGHT Sensor Deployment](#)
- [Manage Gigamon ThreatINSIGHT Sensor](#)
- [Troubleshoot Gigamon ThreatINSIGHT Sensor Deployment and Management Issues](#)

Threat Detection and Response with Gigamon ThreatINSIGHT

Gigamon ThreatINSIGHT is a SaaS-based network security monitoring platform built with the ability to detect, respond, and investigate network-based threats. ThreatINSIGHT has the following key features:

- Rapid threat-hunting support with rich metadata search of supported protocols
- Powerful visualization tools for tracking the different aspects of your network
- Automated threat-detections built with alerting functionality

The Gigamon ThreatINSIGHT Sensor that is deployed on the GigaVUE-HCI SMT-HCI-S module using GigaVUE-FM, provides a single, integrated security solution for threat-detection.

NOTE: For more information about Gigamon ThreatINSIGHT, refer to the *ThreatINSIGHT Portal Guides*. To access the Portal Guides, log in to Gigamon ThreatINSIGHT, and then go to **Help > Portal Guides**.

Rules and Notes

Keep in mind the following rules and notes before you deploy Gigamon ThreatINSIGHT on the SMT-HCI-S module:

- You can attach only one ThreatINSIGHT Sensor to a GigaSMART engine.

- You cannot enable other GigaSMART operations on the GigaSMART engine to which the ThreatINSIGHT Sensor is attached.
- You cannot delete a virtual port that is attached to the GigaSMART engine on which the ThreatINSIGHT Sensor is provisioned.
- If you delete the ThreatINSIGHT Sensor tool from GigaVUE-FM, the ThreatINSIGHT Sensor statistics are cleared from GigaVUE-FM and the GigaVUE-HCI device. You must re-provision the ThreatINSIGHT Sensor tool in GigaVUE-FM using a new provision code from the [Gigamon ThreatINSIGHT Portal](#).

Work With Gigamon ThreatINSIGHT Sensor—A Roadmap

Perform the following tasks to deploy the ThreatINSIGHT Sensor and monitor the traffic flow:

Step	Task	Refer to
1.	Deploy Gigamon ThreatINSIGHT Sensor as a tool on the SMT-HCI-S module of GigaVUE-HCI.	Deploy Gigamon ThreatINSIGHT Sensor on the SMT-HCI-S Module
2.	<p>Configure either a classic map or a Fabric map to filter and forward the traffic. Before you proceed with map configurations, ensure that the status of the ThreatINSIGHT Sensor is Online and that the Sensor alias is correctly populated. Keep in mind the following details when you configure a classic map or a Fabric map:</p> <ul style="list-style-type: none"> ● Select the GigaVUE-HCI node that has the SMT-HCI-S module installed and the ThreatINSIGHT Sensor deployed. ● Select the map type as First Level. ● In the Destination field, select the virtual port that GigaVUE-FM had created when you deployed the ThreatINSIGHT Sensor. <p>NOTE: The virtual port will be available for selection only if you select the map type as First Level.</p> <p>The ThreatINSIGHT Sensor starts to analyze the traffic and polls the data to the Gigamon ThreatINSIGHT Portal.</p>	<ul style="list-style-type: none"> ● Create a New Map ● Create Fabric Maps
3.	View the network events that the ThreatINSIGHT Sensor generates when it inspects the traffic and extracts key protocol metadata for processing. You can run a query to view the events generated in the Last 1 Hour, Last 24 Hours, Last 7 Days, or Last 30 Days.	View Network Events in Gigamon ThreatINSIGHT Portal
4.	View the statistics of the data received and analyzed by the ThreatINSIGHT Sensor in GigaVUE-FM.	View Gigamon ThreatINSIGHT Sensor Statistics in GigaVUE-FM

Deploy Gigamon ThreatINSIGHT Sensor on the SMT-HCI-S Module

To integrate Gigamon ThreatINSIGHT with SMT-HCI-S module, you must deploy the ThreatINSIGHT Sensor as one of the tools on the SMT-HCI-S module. This topic provides instructions to complete the deployment.

Prerequisites

Ensure that you complete the following prerequisites before you start with Gigamon ThreatINSIGHT Sensor deployment:

- Upgrade your GigaVUE-FM instance to v5.10.00 or above.

NOTE: The latest LTS version is usually recommended. For the latest Long Term Support (LTS) release information, refer to the [Gigamon Software Release Status](#) article on the Community.

- Add the GigaVUE-HCI device that has the SMT-HCI-S module installed. For instructions, refer to [Add New Physical Node or Cluster to GigaVUE-FM](#).
- Generate a provision code from the [Gigamon ThreatINSIGHT Portal](#) to validate your Gigamon ThreatINSIGHT integration. The provision code that you generate is valid for 24 hours. For instructions, refer to the "Generate a Registration Code" section in the ThreatINSIGHT Portal Guides.

NOTE: To access the Portal Guides, log in to the [ThreatINSIGHT Portal](#) and go to **Help > Portal Guides**.

- Ensure that the GigaSMART engine port on which you want to deploy the ThreatINSIGHT Sensor has internet connectivity so that the ThreatINSIGHT Sensor can connect to AWS.

NOTE: If you are installing the SMT-HCI-S (Gen 3 GigaSMART Card), use the recommended upgrade path specific to this module. Refer to [SMT-HCI-S \(Gen 3 GigaSMART Card\)](#), for details.

To configure the network access:

- a. From the device view, go to **Ports > Ports > All Ports**.
- b. Select the engine port and then click **Edit**.

- c. You can either manually assign the IP address or select the **Enable DHCP** check box to dynamically assign the IP address and other network configuration parameters.
- d. Select **eth2** as the interface, and then click **OK**.

Deploy Gigamon ThreatINSIGHT Sensor Using GigaVUE-FM

Before you proceed with the deployment, ensure that you complete all prerequisites listed in the [Prerequisites](#) section.

To deploy Gigamon ThreatINSIGHT Sensor on the SMT-HCI-S module of GigaVUE-HCI:

1. Log in to GigaVUE-FM, and then go to **Inventory > Tools > Insight Sensors**.
2. Click **Add**, and then in the Add Gigamon Integrated ThreatINSIGHT page, enter a unique name for the ThreatINSIGHT Sensor that you are deploying.
3. In the **Provision Code** field, enter the provision code that you have generated from the [Gigamon ThreatINSIGHT Portal](#).
4. In the **Cluster** field, select the GigaVUE-HCI node that has the SMT-HCI-S module installed.
5. In the **Processing Engines** field, select the required GigaSMART engine port to which you want to deploy the ThreatINSIGHT Sensor.

NOTE: Only GigaSMART engine ports that are capable of ThreatINSIGHT Sensor deployment are listed.

6. Click **Activate**.

The screenshot shows the GigaVUE-FM web interface. The top navigation bar includes 'Dashboards', 'Traffic', and 'Inventory'. The left sidebar shows 'PHYSICAL' and 'VIRTUAL' sections. The main content area is titled 'Add Gigamon Integrated ThreatINSIGHT' and contains the following form fields:

- Name:** Demo1
- Comment:** (empty)
- Provision Code:** gsqa-1NFzZGt
- Cluster:** 10.115.26.45
- Processing Engines:** 7/2/e1

Buttons for 'Activate' and 'Cancel' are located in the top right corner of the form area.

GigaVUE-FM creates the required configurations, such as the GigaSMART group and the Virtual port on the SMT-HCI-S module. GigaVUE-FM, then establishes connection with the ThreatINSIGHT Sensor using the provision code you provided. The ThreatINSIGHT Sensor communicates with the Gigamon ThreatINSIGHT Portal and obtains a sensor alias, which is populated in GigaVUE-FM and Gigamon ThreatINSIGHT Portal. It may take couple of minutes for the ThreatINSIGHT Sensor to be provisioned.

Verify Gigamon ThreatINSIGHT Sensor Status

Ensure that the status of the ThreatINSIGHT Sensor is **Online**. You can view the status and alias of the ThreatINSIGHT Sensor in the following pages:

- GigaVUE-FM—In the Tools page, select the ThreatINSIGHT Sensor that you have deployed, click the vertical ellipsis, and then select **View Details**.

The screenshot displays the 'Details: Demolnsight' page for a Gigamon ThreatINSIGHT sensor. The main table contains the following information:

Name	Type	Model
Demolnsight	Gigamon ThreatINSIGHT	GigaSMARTv3
Vendor	Comment	Processing Engine
Gigamon		1/3/e1

To the right of the table is a 'Total Throughput' widget showing 0 Gbps. Below the table is an 'Additional Details' section with the following data:

Status	Online
Status Detail	Online. Waiting for state change.
Last Updated Time	2020-04-29T16:44:13Z
Sensor Alias	test60
Serial Number	815bf73d-861f-44db-8caa-ef69643983e8
Type	GigaSMART v3 Platform
Version	0.2.5
Total Throughput (Bytes/s)	151

At the bottom, there is a 'Linked Maps' section which currently shows 'No maps found.'

- [Gigamon ThreatINSIGHT Customer Portal](#)—Click the  icon, and then select **Sensors**.



SENSOR ID	STATUS	LOCATION	7 DAY AVERAGE THROUGHPUT	TYPE
test57	Online	N/A	0 EPS 1.3 Kb/s	UNDEFINED
test58	Offline	N/A	0 EPS 555.6 Kb/s	UNDEFINED
test59	Offline	N/A	0 EPS 193.9 Kb/s	UNDEFINED
test60	Online	N/A	0 EPS 3.8 Mb/s	UNDEFINED

Manage Gigamon ThreatINSIGHT Sensor

Once the Gigamon ThreatINSIGHT Sensor is deployed, you can view network events on the Gigamon ThreatINSIGHT portal. You can also view statistics from GigaVUE-FM. This topic provides information about these activities as well as instructions for disabling or deleting the Gigamon ThreatINSIGHT Sensor.

Disable and Enable Gigamon ThreatINSIGHT Sensor

You can choose to disable the ThreatINSIGHT Sensor in GigaVUE-FM. Before you disable the ThreatINSIGHT Sensor, ensure that the sensor is not used in any maps. To disable the ThreatINSIGHT Sensor, go to the Tools page, select the ThreatINSIGHT Sensor, and then click **Actions > Disable**. It may take few minutes for the ThreatINSIGHT Sensor to be disabled.

To enable the ThreatINSIGHT Sensor, go to the Tools page, select the ThreatINSIGHT Sensor, and then click **Actions > Enable**. You do not need a new provision code to enable the ThreatINSIGHT Sensor. The status of the ThreatINSIGHT Sensor changes to **Online**. Refer to [Verify Gigamon ThreatINSIGHT Sensor Status](#).

Delete Gigamon ThreatINSIGHT Sensor

If you delete a ThreatINSIGHT Sensor tool from GigaVUE-FM, the ThreatINSIGHT Sensor statistics are cleared from GigaVUE-FM and the GigaVUE-HCI device. You must re-provision the ThreatINSIGHT Sensor tool in GigaVUE-FM using a new provision code generated from the [Gigamon ThreatINSIGHT Portal](#).

Before you delete a ThreatINSIGHT Sensor, ensure that the sensor is not used in any maps and that you have disabled the sensor.

To delete the ThreatINSIGHT Sensor, go to the Tools page, select the ThreatINSIGHT Sensor, and then click **Actions > Delete**.

NOTE: If you want to add the ThreatINSIGHT Sensor tool back in GigaVUE-FM, it is recommended that you provide the same name so that you can obtain the old statistics from the ThreatINSIGHT Sensor tool.

View Network Events in Gigamon ThreatINSIGHT Portal

The ThreatINSIGHT Sensor performs deep packet inspection of all observed network traffic and extracts out key protocol metadata for processing by the Gigamon ThreatINSIGHT data pipeline. This metadata is organized into records called events. For more information about events, refer to the "Network Events" section in the *ThreatINSIGHT Portal Guides*.

To view the network events in [Gigamon ThreatINSIGHT Portal](#), go to **Investigate > Events**. You can run a query to view the events generated in the Last 1 Hour, Last 24 Hours, Last 7 Days, or Last 30 Days. For example, to view all the events generated for a specific ThreatINSIGHT Sensor alias, run the following query:

```
sensor_id = "test60"
```

The screenshot shows the Gigamon ThreatINSIGHT Portal interface. At the top, there is a navigation bar with 'THREATINSIGHT' and 'Investigate' tabs. Below the navigation bar, there is a search bar with the query 'sensor_id = test60'. The main content area displays a table of network events. The table has columns for timestamp, type, src, dst, host, uri, referer, server_name, server_name_indication, files, san_dns, san_email, and san_ip. The events are sorted by timestamp and show various protocols like HTTP, SSL, and X309.

timestamp	type	src	dst	host	uri	referer	server_name	server_name_indication	files	san_dns	san_email	san_ip
2020-04-17 18:29:59 Z	HTTP	10.155.36.80:54696	30.30.21.53:80	at.casalemedia.com	/headerstats/3fa=194886&nr				1 File			
2020-04-17 18:29:59 Z	SSL	10.155.23.196:33607	30.30.22.44:443				secure-lax.adrxs.com	secure-lax.adrxs.com				
2020-04-17 18:29:59 Z	X309	10.155.23.196:33607	30.30.22.44:443							* adrxs.com		
2020-04-17 18:29:59 Z	X309	10.155.23.196:33607	30.30.22.44:443							* adrxs.com		
2020-04-17 18:29:59 Z	SSL	10.155.23.196:33607	30.30.22.44:443				secure-lax.adrxs.com	secure-lax.adrxs.com				
2020-04-17 18:29:59 Z	HTTP	10.155.36.80:54696	30.30.21.53:80	at.casalemedia.com	/headerstats/3fa=194886&nr				1 File			
2020-04-17 18:29:59 Z	X309	10.155.21.61:34769	30.30.23.174:443							* evernote.com		
2020-04-17 18:29:59 Z	X309	10.155.21.61:34769	30.30.23.174:443							* evernote.com		
2020-04-17 18:29:59 Z	X309	10.155.21.61:34769	30.30.23.174:443							* evernote.com		
2020-04-17 18:29:59 Z	X309	10.155.21.61:34769	30.30.23.174:443							* evernote.com		
2020-04-17 18:29:59 Z	X309	10.155.21.61:34769	30.30.23.174:443							* evernote.com		
2020-04-17 18:29:59 Z	SSL	10.155.21.61:34769	30.30.23.174:443				www.evernote.com	www.evernote.com				
2020-04-17 18:29:59 Z	X309	10.155.21.61:34769	30.30.23.174:443							* evernote.com		
2020-04-17 18:29:59 Z	SSL	10.155.21.61:34769	30.30.23.174:443				www.evernote.com	www.evernote.com				

View Gigamon ThreatINSIGHT Sensor Statistics in GigaVUE-FM

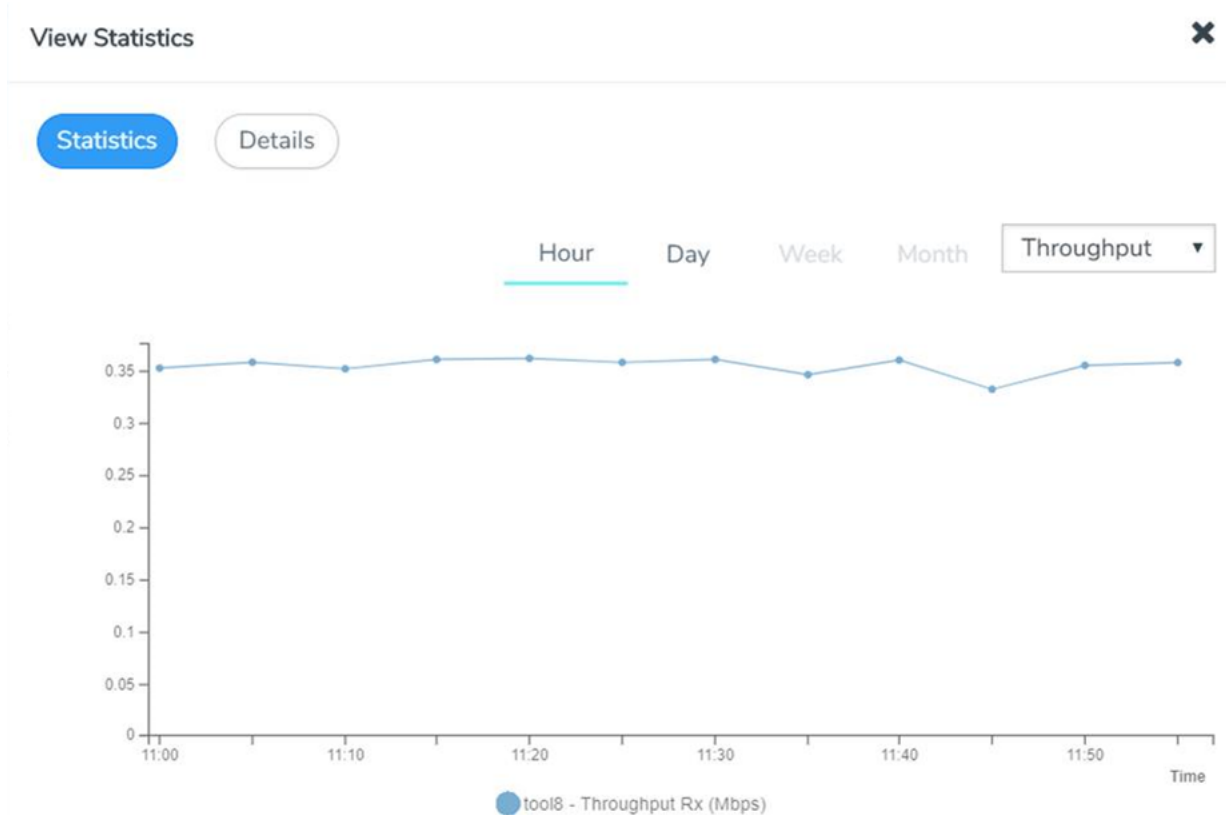
GigaVUE-FM polls the ThreatINSIGHT Sensor to obtain statistics for the following types of counters:

- **Total Data**—The total data received and analyzed by the ThreatINSIGHT Sensor.
- **Total Packets**—The number of packets received and analyzed by the ThreatINSIGHT Sensor.

- **Throughput**—The amount of data successfully processed by the ThreatINSIGHT Sensor. This is the default counter.
- **Errors**—The number of packets received with errors.
- **Discards**—The number of packets discarded by the ThreatINSIGHT Sensor.
- **Dropped**—The number of packets dropped by the ThreatINSIGHT Sensor.

The counters are aggregated by hour, day, week, or month.

To view the statistics in GigaVUE-FM, go to the Tools page, select the ThreatINSIGHT Sensor, click the vertical ellipsis, and then select **View Statistics Graph**.



NOTE: You cannot clear these counters.

Use the Details tab in the View Statistics page to view the diagnostics statistics of the ThreatINSIGHT Sensor's Communication port (management port) and Connectivity port (stack port - eth2). These statistics gets refreshed every 10 seconds.

The screenshot shows a 'View Statistics' window with two tabs: 'Statistics' and 'Details'. The 'Details' tab is active, displaying a list of network metrics for two ports: 'Communication Port' and 'Connectivity Port'. Each port has a 'Status' field and several performance metrics including Tx/Rx Throughput, Bytes, Packets, Errors, Discards, and Dropped. A mouse cursor is visible over the 'Tx Discards (pps)' value for the Communication Port.

Communication Port ⓘ	
Status	up
Tx Throughout (bytes)	0
Tx Bytes (bytes)	125657
Tx Packets (pps)	513
Tx Errors (pps)	0
Tx Discards (pps)	0
Tx Dropped (pps)	0
Rx Throughout (bytes)	0
Rx Bytes (bytes)	62973
Rx Packets (pps)	771
Rx Errors (pps)	0
Rx Discards (pps)	0
Rx Dropped (pps)	0
Connectivity Port ⓘ	
Status	up

Troubleshoot Gigamon ThreatINSIGHT Sensor on GigaVUE-HCI

You can troubleshoot the ThreatINSIGHT Sensor deployment issues using the information available in the Details page in GigaVUE-FM. To access the page, go to the Tools page, select the ThreatINSIGHT Sensor, click the vertical ellipsis, and then select **View Details**.

Use the ThreatINSIGHT Sensor's diagnostics statistics that appear in the Details tab in the View Statistics page to troubleshoot management issues such as:

- the ThreatINSIGHT Sensor is unable to obtain configurations from GigaVUE-FM or GigaVUE-OS CLI,
- the ThreatINSIGHT Sensor is unable to export events to the Gigamon ThreatINSIGHT Portal, and so on.

To view the diagnostics statistics in GigaVUE-FM, go to the Tools page, select the ThreatINSIGHT Sensor, click the vertical ellipsis, select **View Statistics Graph**, and then go to the Details tab.

For more details, refer to [Troubleshoot Gigamon ThreatINSIGHT Sensor Issues](#).